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December 3, 2010

**VIA ELECTRONIC FILING**

Jocelyn Boyd, Esquire  
Chief Clerk/Administrator  
**Public Service Commission of South Carolina**  
101 Executive Center Dr., Suite 100  
Columbia, SC 29210

RE: Application of Duke Energy Carolinas, LLC for Approval of Rider EE Vintage 2  
**Docket No.: 2010-299-E**

Dear Ms. Boyd:

The South Carolina Office of Regulatory Staff ("ORS"), in accordance with the terms of the settlement agreement approved in Docket No. 2009-226-E, has conducted a review of the Duke Energy Carolinas, LLC ("Duke" or "the Company") Application for Approval of Rider EE Vintage 2<sup>1</sup>, which will alter the billing factors for Duke's Modified Save-A-Watt program ("SAW"). On September 1, 2010, the Company filed its request for approval of Rider EE Vintage 2 with the Public Service Commission of South Carolina ("Commission"). The Company's requested revised rates are applicable for the billing period January 1, 2011 through December 31, 2011. The table on the following page shows the Vintage 2 requested rates versus the Vintage 1 rates that were approved in Docket No. 2009-226-E.<sup>2</sup> Vintage 1 rates apply to the billing period February 1, 2010 through December 31, 2010.

<sup>1</sup> It should be noted that Rider EE covers energy efficiency and demand side management programs.

<sup>2</sup> Also approved in Docket No. 2009-226-E is the "Demand Side Management Revenue Credit Adjustment Rider (SC)" which applies a decrement per kilowatt hour for the following services and in the following amounts until the deferral account balance reaches zero:

	Decrement (Cents/KWh)
Residential Service	-0.1466
General Service	-0.1705
Lighting and Traffic Signal Service	-0.0570
Industrial Service	-0.2650

	Vintage 1 (Cents/KWh)	Requested Vintage 2 (Cents/KWh)
Residential Rider EE	0.1736	0.2697
Non-Residential Rider EE	0.0195	0.0401
Non-Residential Rider DSM	0.0360	0.0596

In addition, the Company is also requesting a rider of 0.0011 Cents/KWh to recover the second year of Vintage 1 lost revenues for non-residential energy efficiency participants.<sup>3</sup>

**Background** – The SAW program is unique in the manner that the Company is compensated for administering the programs and for generating energy savings. Rather than recovering administration costs plus some additional amount, Duke receives a percentage of the supply-side costs that are avoided by implementation of the programs. For energy efficiency (“EE”) programs, the Company is approved to receive 55% of the net present value of avoided supply-side energy and capacity costs. For demand-side management programs (“DSM”), the Company is approved to receive 75% of the avoided supply-side capacity costs. The Company’s costs to administer the programs, plus a return, are to be covered by the avoided cost payments. This payment structure is designed to incent the Company to pursue all cost effective energy efficiency and demand-side management programs. To prevent excessive earnings, SAW includes an earnings cap that varies, based on performance as measured by targeted savings. The Company may only collect lost revenues from EE programs over a three year period.

**Revenues Requested** – Duke is requesting the recovery of \$17,652,774 from residential customers and \$9,441,363 from non-residential customers. A breakdown of the components of these amounts and the development of the billing factors is shown in Exhibit I. The requested revenues from residential customers are recovered from all residential ratepayers, while the non-residential revenues are recovered solely from those non-residential ratepayers that participate in the programs. The administration costs for the pre-SAW programs are computed separately and included in the total revenue requirements. Billing factors are developed by dividing the total revenue requirements by the forecasted South Carolina kilowatt-hour sales.

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<sup>3</sup> For information purposes, on March 5, 2010, Duke filed in North Carolina its Application for approval of the North Carolina SAW Vintage 2 DSM/EE Rider to be in effect for the period January 1, 2011 through December 31, 2011. The rates requested by Duke Energy and subsequently approved by Order of the North Carolina Utilities Commission on August 3, 2010 in Docket No. E-7, Sub 941 are as follows:

	Approved Vintage 2 (Cents/KWh)
Residential Rider EE	0.1702
Non-Residential Rider EE	0.0257
Non-Residential Rider DSM	0.0297

Duke also received approval of 0.0031 Cents/KWh to recover the second year of Vintage 1 lost revenues for non-residential energy efficiency participants.

**DSMore™** – The Demand Side Management Option Risk Evaluator (“DSMore™”) is a computer program provided by Integral Analytics. It is one of the leading DSM and EE evaluation products available today, and is in use nationwide. The Company uses DSMore™ to evaluate prospective EE and DSM programs for cost effectiveness, to project the likely avoided energy and capacity for specific programs and to estimate lost revenues for specific programs. Specifically, avoided costs are estimated on a system basis by the DSMore™ computer program, then reduced by 25% or 45% to reflect the 75% and 55% portions approved to be received by the Company, then allocated to South Carolina, and then reduced by 15% to reflect the assumed 85% participation rate. Lost revenues are also estimated on a system basis by the DSMore™ program, allocated to South Carolina, and reduced by 15% to reflect the assumed 85% participation rate. ORS was provided training for the DSMore™ program. After the training, ORS was provided access to the program along with the Company’s input data for the program. ORS concludes that DSMore™ is a comprehensive and effective tool for the evaluation and impact estimation of DSM and EE programs.

**Evaluation, Measurement & Verification** – The Evaluation, Measurement and Verification (“EM&V”) process is mostly in its initial stages. Some portions of EM&V are not yet underway. This is expected and not unreasonable. The settlement agreement states that EM&V results will “be included in a mid-term EM&V-based true-up process that will be reflected in Vintage Year 3 Rider EE collections.” The first major impacts of EM&V will take effect in 2011. However, there have been limited early results from the EM&V process. Most notably:

- An independent evaluation by TecMarket Works of the Low Income CFL Program concluded that “Duke Energy is not meeting its participation goals.” Duke is working to improve participation.
- An independent evaluation also by TecMarket Works of the Power Manager (residential load control) program in South Carolina found that the \$35 installation fee was a “barrier to participation.” The Company is evaluating the implications of removing the installation fee.

**Estimates Used in the Filing** – All program avoided energy amounts, avoided capacity amounts, and lost revenues are estimates derived from the DSMore™ computer model. Thus, the dollar amounts in the filing for avoided costs and lost revenues are also estimates. These values and dollar amounts are to be trued up for the Vintage Year 3 rider computations in 2011 and again for the Vintage Year 6 rider computations in 2014, based on EM&V results.

**Existing DSM Programs** – ORS has verified that all program costs, avoided costs and lost revenues associated with the Company’s North Carolina and South Carolina interruptible service (“IS”) and standby generation (“SG”) programs – Rider IS and Rider SG – (“Existing DSM Programs”) have been excluded from the SAW incentive program, that the program costs associated with the Company’s Existing DSM Programs are being recovered as a separate component of Rider EE, and that the recovery of the cost of these programs is consistent with the Company’s approved tariff.

**Avoided Costs** – ORS has verified that the per MWh and per MW-Year avoided energy costs and avoided capacity costs are the fixed costs approved in Docket No. 2009-226-E. Pursuant to the settlement agreement approved in Docket No. 2009-226-E, if the Company’s combined avoided energy and capacity costs increase or decrease by more than 25%, due to changes in the per MWh and per MW-Year avoided energy or capacity costs, the programs will be re-analyzed to determine whether a modification of the

portfolio of programs is warranted to maximize cost-effectiveness. Information provided by the Company on December 1, 2010 shows that the combined avoided energy and capacity costs have not increased or decreased by more than 25%.

**Forecasted Retail Sales** – The Company has utilized its current 2010 Load Forecast in this filing. ORS finds this to be reasonable.

**Opt-Outs** – The Company reports that non-residential opt-outs in Vintage 1 represent 39% of forecasted 2011 sales. The Company is in the process of modifying existing programs and developing new programs that may appeal to more non-residential customers.

**Peak Demand Reduction** – The Company claims in its Application to have the capability to reduce peak demand by 574 mega-watts through the residential Power Manager program and the non-residential Power Share program. The Company has not shown that the claimed level of peak demand reduction is actually available. Based upon a request from ORS, the Company agreed to conduct tests in 2011 to demonstrate that it is feasible to reduce peak demand by 574 mega-watts and the results will be provided to the Commission and ORS upon completion of the testing. ORS may seek modifications to Rider EE Vintage 3 based on the results.

In conclusion, ORS does not object to the implementation of Rider EE Vintage 2.

Sincerely,



Shannon Bowyer Hudson

SBH/clm

cc: Timika Shafeek-Horton, Esquire  
Frank R. Ellerbe, III, Esquire  
Bonnie D. Shealy, Esquire

**Requested Revenues and Billing Factors**  
***Duke SAW Programs and Prior Existing DSM Programs***

	<u>Residential</u>	<u>Non-Residential</u>
<b><u>SAW Avoided Costs:</u></b>		
Energy Efficiency (EE):		
Total System NPV Avoided Costs	\$60,092,657	\$29,709,124
55% of Total System NPV Avoided Costs	\$33,050,961	\$16,340,018
South Carolina Portion	\$8,901,873	\$4,400,985
85% of South Carolina Portion	\$7,566,592	\$3,740,837
Demand-Side Management (DSM):		
Total System NPV Avoided Costs	\$20,653,070	\$22,583,463
75% of Total System NPV Avoided Costs	\$15,489,803	\$16,937,597
South Carolina Portion	\$4,044,158	\$4,422,156
Allocated per peak demand contribution	\$3,498,559	\$4,967,755
85% of South Carolina Portion	\$2,973,775	\$4,222,591
Total Avoided Costs - DSM & EE	\$10,540,368	\$7,963,428
Total Avoided Costs with Gross Receipts Tax and Regulatory Fee	\$10,588,653	\$7,999,909
<b><u>SAW Lost Revenues:</u></b>		
Total System Lost Revenues	\$27,286,630	\$1,227,760
South Carolina Portion - Vintage 2	\$7,349,321	\$207,449
South Carolina Portion - Vintage 1		\$123,234
85% of South Carolina Portion	\$6,246,923	\$281,080
<b><u>Existing DSM Programs (pre-SAW):</u></b>		
Revenue Requirement	\$813,472	\$1,155,083
Revenue Requirement with Gross Receipts Tax and Regulatory Fee	\$817,198	\$1,160,374
Total Revenue Requirement	\$17,652,774	\$9,441,363
Projected South Carolina Residential Sales (KWh)	6,546,452,004	
Residential Billing Factor (Cents/KWh)	0.2697	
Projected Sales to Non-Residential EE Participants Vintage 2 (KWh)		9,800,193,917
Billing Factor - Non-Residential Vintage 1 Year 2 Lost Revenues		0.0011
Projected Sales to Non-Residential EE Participants Vintage 2 (KWh)		9,800,193,917
Billing Factor - Non-Residential Vintage 2 EE Participants		0.0401
Projected Sales to Non-Residential DSM Participants Vintage 2 (KWh)		9,056,959,677
Billing Factor - Non-Residential Vintage 2 DSM Participants		0.0596